



# Brushless DC Motors – Gearless Rollers

# Brushless DC Motors - Gearless Rollers

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# Gearless Motoroller Frameless

Motoroller in frameless cartridges version without tube, to be inserted into the roller to be moved



<https://www.kocomotion.de/produkt/gearless-motoroller-frameless/>



Produkte:	Seite
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# Gearless Motoroller Frameless

## MTR FL 46 75 06

Motoroller in frameless cartridges version without tube, to be inserted into the roller to be moved



<https://www.kocomotion.de/produkt/gearless-motoroller-frameless-mtr-fl-46-75-06/>



Specification	
Stall torque	0.74 Nm
Peak torque	2.2 Nm
Rated torque	0.6 Nm
Rated working speed	800 rpm
Rated voltage	24 Vdc
Maximum working speed @ 24 Vdc	1000 rpm
Maximum working speed @ 48 Vdc	1150 rpm
Maximum working speed @ 60 Vdc	-
Maximum working speed @ 65 Vdc	-
Rated output power	50 W
Stall current	3.3 Arms
Peak current	11 Arms
Rated current	2.7 Arms
Torque constant +/- 10%	0.22 Nm/Arms
Voltage constant +/- 10%	13.6 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	0.77
Phase/pase resistance +/- 10% @25°C	1.35 mH
Electrical time constant	1.75 ms
Rotor inertia	5 kg-cm <sup>2</sup>
Motor weight	1.96 kg-cm <sup>2</sup>
Axial shaft load @ 800 rpm	110 N
Radial shaft load @800 rpm applied on rotor's centering	220 N

## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

- D0 - cable output with connectors

# Gearless Motoroller Frameless MTR FL 46 75 13

Motoroller in frameless cartridges version without tube, to be inserted into the roller to be moved



<https://www.kocomotion.de/produkt/gearless-motoroller-frameless-mtr-fl-46-75-13/>



Specification	
Stall torque	0.74 Nm
Peak torque	2.2 Nm
Rated torque	0.6 Nm
Rated working speed	800 rpm
Rated voltage	48 Vdc
Maximum working speed @ 24 Vdc	500 rpm
Maximum working speed @ 48 Vdc	1150 rpm
Maximum working speed @ 60 Vdc	-
Maximum working speed @ 65 Vdc	-
Rated output power	50 W
Stall current	1.63 Arms
Peak current	5.71 Arms
Rated current	1.33 Arms
Torque constant +/- 10%	0.45 Nm/Arms
Voltage constant +/- 10%	27.6 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	2.64
Phase/pase resistance +/- 10% @25°C	5.4 mH
Electrical time constant	2 ms
Rotor inertia	5 kg-cm <sup>2</sup>
Motor weight	1.96 kg-cm <sup>2</sup>
Axial shaft load @ 800 rpm	110 N
Radial shaft load @800 rpm applied on rotor's centering	220 N

## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

- D0 - cable output with connectors

# Gearless Motoroller Frameless MTR FL 46 140 13

Motoroller in frameless cartridges version without tube, to be inserted into the roller to be moved



<https://www.kocomotion.de/produkt/gearless-motoroller-frameless-mtr-fl-46-140-13/>



Specification	
Stall torque	1.5 Nm
Peak torque	4.5 Nm
Rated torque	1.35 Nm
Rated working speed	800 rpm
Rated voltage	48 Vdc
Maximum working speed @ 24 Vdc	500 rpm
Maximum working speed @ 48 Vdc	1000 rpm
Maximum working speed @ 60 Vdc	-
Maximum working speed @ 65 Vdc	-
Rated output power	115 W
Stall current	3.3 Arms
Peak current	10.61 Arms
Rated current	3 Arms
Torque constant +/- 10%	0.45 Nm/Arms
Voltage constant +/- 10%	27.6 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	1.23
Phase/pase resistance +/- 10% @25°C	2.81 mH
Electrical time constant	2.3 ms
Rotor inertia	6.1 kg·cm <sup>2</sup>
Motor weight	2.73 kg·cm <sup>2</sup>
Axial shaft load @ 800 rpm	110 N
Radial shaft load @800 rpm applied on rotor's centering	220 N



## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

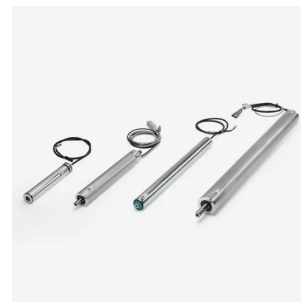
- D0 - cable output with connectors

# Gearless Motoroller Frameless MTR FL 76 100 14

Motoroller in frameless cartridges version without tube, to be inserted into the roller to be moved



<https://www.kocomotion.de/produkt/gearless-motoroller-frameless-mtr-fl-76-100-14/>



Specification	
Stall torque	3.6 Nm
Peak torque	22 Nm
Rated torque	3.1 Nm
Rated working speed	800 rpm
Rated voltage	60 Vdc
Maximum working speed @ 24 Vdc	800 rpm
Maximum working speed @ 48 Vdc	-
Maximum working speed @ 60 Vdc	-
Maximum working speed @ 65 Vdc	1000 rpm
Rated output power	260 W
Stall current	6.1 Arms
Peak current	41 Arms
Rated current	5.2 Arms
Torque constant +/- 10%	0.59 Nm/Arms
Voltage constant +/- 10%	36 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	0.51
Phase/pase resistance +/- 10% @25°C	0.07 mH
Electrical time constant	1.37 ms
Rotor inertia	23.2 kg·cm <sup>2</sup>
Motor weight	5.1 kg·cm <sup>2</sup>
Axial shaft load @ 800 rpm	220 N
Radial shaft load @800 rpm applied on rotor's centering	500 N

## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

- D0 - cable output with connectors

# Gearless Motoroller Powerpack

Motroller in power pack version, a ready to use motoroller embedded in its own tube.



<https://www.kocomotion.de/produkt/gearless-motoroller-powerpack/>



Produkte:	Seite
Gearless Motoroller Powerpack MTR PP 46 75 06	13
Gearless Motoroller Powerpack MTR PP 46 75 13	15
Gearless Motoroller Powerpack MTR PP 46 140 13	17
Gearless Motoroller Powerpack MTR PP 60 150 21	19
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# Gearless Motoroller Powerpack MTR PP 46 75 06

Motoroller in power pack version, a ready to use motoroller embedded in its own tube.



<https://www.kocomotion.de/produkt/gearless-motoroller-powerpack-mtr-pp-46-75-06/>



Specification	
Stall torque	0.74 Nm
Peak torque	2.2 Nm
Rated torque	0.6 Nm
Rated working speed	800 rpm
Rated voltage	24 Vdc
Maximum working speed @ 24 Vdc	1000 rpm
Maximum working speed @ 48 Vdc	1150 rpm
Maximum working speed @ 60 Vdc	-
Maximum working speed @ 65 Vdc	-
Rated output power	50 W
Stall current	3.3 Arms
Peak current	11 Arms
Rated current	2.7 Arms
Torque constant +/- 10%	0.22 Nm/Arms
Voltage constant +/- 10%	13.6 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	0.77
Phase/pase resistance +/- 10% @25°C	1.35 mH
Electrical time constant	1.75 ms
Rotor inertia	5 kg-cm <sup>2</sup>
Motor weight	1.96 kg-cm <sup>2</sup>
Axial shaft load @ 800 rpm	110 N
Radial shaft load @800 rpm applied on rotor's centering	220 N

## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

- D0 - cable output with connectors

### Mechanical Arrangement

- 01 Male tread fixed shaft
- Tube Type for MTR PP 46 only: 01 - Standard tube
- Tube Type for MTR PP 46 only: 02 - Double grooved tube
- Tube Type for MTR PP 46 only: 03 - Conveyor belt tube
- Tube Type for MTR PP 46 only: 04 - Poly-V pulley tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 05 - Double grooved pulley tube
- Tube Type for MTR PP 46 only: 06 - Tapered sleeves tube
- Tube Type for MTR PP 46 only: 07 - Double grooved and tapered sleeves tube
- Tube Type for MTR PP 46 only: 08 - Poly-V and tapered sleeves tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 09 - Double grooved pulley and tapered sleeves tube
- Indle shaft for MTR PP 46 only: AA - hex spring loaded
- Indle shaft for MTR PP 46 only: AB - female thread
- Indle shaft for MTR PP 46 only: AC - poly-V hex spring loaded
- Indle shaft for MTR PP 46 only: AD - poly-V thread

# Gearless Motoroller Powerpack MTR PP 46 75 13

Motoroller in power pack version, a ready to use motoroller embedded in its own tube.



<https://www.kocomotion.de/produkt/gearless-motoroller-powerpack-mtr-pp-46-75-13/>



Specification	
Stall torque	0.74 Nm
Peak torque	2.2 Nm
Rated torque	0.6 Nm
Rated working speed	800 rpm
Rated voltage	48 Vdc
Maximum working speed @ 24 Vdc	500 rpm
Maximum working speed @ 48 Vdc	1150 rpm
Maximum working speed @ 60 Vdc	-
Maximum working speed @ 65 Vdc	-
Rated output power	50 W
Stall current	1.63 Arms
Peak current	5.71 Arms
Rated current	1.33 Arms
Torque constant +/- 10%	0.45 Nm/Arms
Voltage constant +/- 10%	27.6 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	2.64
Phase/pase resistance +/- 10% @25°C	5.4 mH
Electrical time constant	2 ms
Rotor inertia	5 kg-cm <sup>2</sup>
Motor weight	1.96 kg-cm <sup>2</sup>
Axial shaft load @ 800 rpm	110 N
Radial shaft load @800 rpm applied on rotor's centering	220 N

## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

- D0 - cable output with connectors

### Mechanical Arrangement

- 01 Male tread fixed shaft
- Tube Type for MTR PP 46 only: 01 - Standard tube
- Tube Type for MTR PP 46 only: 02 - Double grooved tube
- Tube Type for MTR PP 46 only: 03 - Conveyor belt tube
- Tube Type for MTR PP 46 only: 04 - Poly-V pulley tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 05 - Double grooved pulley tube
- Tube Type for MTR PP 46 only: 06 - Tapered sleeves tube
- Tube Type for MTR PP 46 only: 07 - Double grooved and tapered sleeves tube
- Tube Type for MTR PP 46 only: 08 - Poly-V and tapered sleeves tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 09 - Double grooved pulley and tapered sleeves tube
- Indle shaft for MTR PP 46 only: AA - hex spring loaded
- Indle shaft for MTR PP 46 only: AB - female thread
- Indle shaft for MTR PP 46 only: AC - poly-V hex spring loaded
- Indle shaft for MTR PP 46 only: AD - poly-V thread



# Gearless Motoroller Powerpack MTR PP 46 140 13

Motoroller in power pack version, a ready to use motoroller embedded in its own tube.



<https://www.kocomotion.de/produkt/gearless-motoroller-powerpack-mtr-pp-46-140-13/>



Specification	
Stall torque	1.5 Nm
Peak torque	4.5 Nm
Rated torque	1.35 Nm
Rated working speed	800 rpm
Rated voltage	48 Vdc
Maximum working speed @ 24 Vdc	500 rpm
Maximum working speed @ 48 Vdc	1000 rpm
Maximum working speed @ 60 Vdc	-
Maximum working speed @ 65 Vdc	-
Rated output power	115 W
Stall current	3.3 Arms
Peak current	10.61 Arms
Rated current	3 Arms
Torque constant +/- 10%	0.45 Nm/Arms
Voltage constant +/- 10%	27.6 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	1.23
Phase/pase resistance +/- 10% @25°C	2.81 mH
Electrical time constant	2.3 ms
Rotor inertia	6.1 kg·cm <sup>2</sup>
Motor weight	2.73 kg·cm <sup>2</sup>
Axial shaft load @ 800 rpm	110 N
Radial shaft load @800 rpm applied on rotor's centering	220 N

## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

- D0 - cable output with connectors

### Mechanical Arrangement

- 01 Male tread fixed shaft
- Tube Type for MTR PP 46 only: 01 - Standard tube
- Tube Type for MTR PP 46 only: 02 - Double grooved tube
- Tube Type for MTR PP 46 only: 03 - Conveyor belt tube
- Tube Type for MTR PP 46 only: 04 - Poly-V pulley tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 05 - Double grooved pulley tube
- Tube Type for MTR PP 46 only: 06 - Tapered sleeves tube
- Tube Type for MTR PP 46 only: 07 - Double grooved and tapered sleeves tube
- Tube Type for MTR PP 46 only: 08 - Poly-V and tapered sleeves tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 09 - Double grooved pulley and tapered sleeves tube
- Indle shaft for MTR PP 46 only: AA - hex spring loaded
- Indle shaft for MTR PP 46 only: AB - female thread
- Indle shaft for MTR PP 46 only: AC - poly-V hex spring loaded
- Indle shaft for MTR PP 46 only: AD - poly-V thread

# Gearless Motoroller Powerpack MTR PP 60 150 21

Motoroller in power pack version, a ready to use motoroller embedded in its own tube.



<https://www.kocomotion.de/produkt/gearless-motoroller-powerpack-mtr-pp-60-150-21/>



Specification	
Stall torque	3.2 Nm
Peak torque	10 Nm
Rated torque	2.8 Nm
Rated working speed	800 rpm
Rated voltage	60 Vdc
Maximum working speed @ 24 Vdc	-
Maximum working speed @ 48 Vdc	-
Maximum working speed @ 60 Vdc	1200 rpm
Maximum working speed @ 65 Vdc	-
Rated output power	235 W
Stall current	6.1 Arms
Peak current	23 Arms
Rated current	5.2 Arms
Torque constant +/- 10%	0.53 Nm/Arms
Voltage constant +/- 10%	31.8 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	0.5
Phase/pase resistance +/- 10% @25°C	1.8 mH
Electrical time constant	3.6 ms
Rotor inertia	16.8 kg·cm <sup>2</sup>
Motor weight	5.3 kg·cm <sup>2</sup>
Axial shaft load @ 800 rpm	140 N
Radial shaft load @800 rpm applied on rotor's centering	600 N

## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

- D0 - cable output with connectors

### Mechanical Arrangement

- 01 Male tread fixed shaft
- Tube Type for MTR PP 46 only: 01 - Standard tube
- Tube Type for MTR PP 46 only: 02 - Double grooved tube
- Tube Type for MTR PP 46 only: 03 - Conveyor belt tube
- Tube Type for MTR PP 46 only: 04 - Poly-V pulley tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 05 - Double grooved pulley tube
- Tube Type for MTR PP 46 only: 06 - Tapered sleeves tube
- Tube Type for MTR PP 46 only: 07 - Double grooved and tapered sleeves tube
- Tube Type for MTR PP 46 only: 08 - Poly-V and tapered sleeves tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 09 - Double grooved pulley and tapered sleeves tube
- Indle shaft for MTR PP 46 only: AA - hex spring loaded
- Indle shaft for MTR PP 46 only: AB - female thread
- Indle shaft for MTR PP 46 only: AC - poly-V hex spring loaded
- Indle shaft for MTR PP 46 only: AD - poly-V thread

# Gearless Motoroller Powerpack MTR PP 76 100 14

Motoroller in power pack version, a ready to use motoroller embedded in its own tube.



<https://www.kocomotion.de/produkt/gearless-motoroller-powerpack-mtr-pp-76-100-14/>



Specification	
Stall torque	3.6 Nm
Peak torque	22 Nm
Rated torque	3.1 Nm
Rated working speed	800 rpm
Rated voltage	60 Vdc
Maximum working speed @ 24 Vdc	800 rpm
Maximum working speed @ 48 Vdc	-
Maximum working speed @ 60 Vdc	-
Maximum working speed @ 65 Vdc	1000 rpm
Rated output power	260 W
Stall current	6.1 Arms
Peak current	41 Arms
Rated current	5.2 Arms
Torque constant +/- 10%	0.59 Nm/Arms
Voltage constant +/- 10%	36 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	0.51
Phase/pase resistance +/- 10% @25°C	0.07 mH
Electrical time constant	1.37 ms
Rotor inertia	23.2 kg·cm <sup>2</sup>
Motor weight	5.1 kg·cm <sup>2</sup>
Axial shaft load @ 800 rpm	220 N
Radial shaft load @800 rpm applied on rotor's centering	500 N

## Optionen

### Feedback

- H1 Hall Sensor
- E1 Incremental encoder ABZ - 3584 cpr

### Connection

- D0 - cable output with connectors

### Mechanical Arrangement

- 01 Male tread fixed shaft
- Tube Type for MTR PP 46 only: 01 - Standard tube
- Tube Type for MTR PP 46 only: 02 - Double grooved tube
- Tube Type for MTR PP 46 only: 03 - Conveyor belt tube
- Tube Type for MTR PP 46 only: 04 - Poly-V pulley tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 05 - Double grooved pulley tube
- Tube Type for MTR PP 46 only: 06 - Tapered sleeves tube
- Tube Type for MTR PP 46 only: 07 - Double grooved and tapered sleeves tube
- Tube Type for MTR PP 46 only: 08 - Poly-V and tapered sleeves tube / This version is not available for sale in Germany
- Tube Type for MTR PP 46 only: 09 - Double grooved pulley and tapered sleeves tube
- Indle shaft for MTR PP 46 only: AA - hex spring loaded
- Indle shaft for MTR PP 46 only: AB - female thread
- Indle shaft for MTR PP 46 only: AC - poly-V hex spring loaded
- Indle shaft for MTR PP 46 only: AD - poly-V thread

# Pallet Conveyor Motoroller

Pallet conveyor Motoroller Power Pack motoroller 89 geared solution for driving pallet conveyor application Load up to 1500 kg



<https://www.kocomotion.de/produkt/pallet-conveyor-motoroller/>



Produkte:	Seite
Pallet Conveyor Motoroller 89 045 04	24
Pallet Conveyor Motoroller 89 045 15	26

# Pallet Conveyor Motoroller 89 045 04

Pallet conveyor Motoroller Power Pack motoroller 89 geared solution for driving pallet conveyor application Load up to 1500 kg



<https://www.kocomotion.de/produkt/pallet-conveyor-motoroller-89-045-04/>



Specification	
Stall torque	73 Nm
Peak torque	120 Nm
Rated torque	43 Nm
Rated working speed	0.27 m/s
Rated voltage	48 Vdc
Rated voltage	-
Rated output power	355 W
Stall current	9.8 Arms
Peak current	16.9 Arms
Rated current	6.4 Arms
Torque constant +/- 10%	0.187 Nm/Arms
Voltage constant +/- 10%	11.3 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	0.67
Phase/pase resistance +/- 10% @25°C	2.1 mH
Electrical time constant	3.1 ms
Rotor inertia	0.526 kg·cm <sup>2</sup>
Axial shaft load @ 80 rpm	240 N
Radial shaft load @80 rpm applied on rotor's centering	3800 N



## Optionen

### Feedback

- H1 Hall Sensor

### Connection

- D0 - cable output with connectors

### Mechanical Arrangement

- Fixed shaft: 01 - Male tread
- Tube type 01: Standard tube
- Indle shaft: AA - hex spring loaded
- Indle shaft: AB - female thread

# Pallet Conveyor Motoroller 89 045 15

Pallet conveyor Motoroller Power Pack motoroller 89 geared solution for driving pallet conveyor application Load up to 1500 kg



<https://www.kocomotion.de/produkt/pallet-conveyor-motoroller-89-045-15/>



Specification	
Stall torque	73 Nm
Peak torque	120 Nm
Rated torque	43 Nm
Rated working speed	0.31 m/s
Rated voltage	-
Rated voltage	230 VAC
Rated output power	355 W
Stall current	2 Arms
Peak current	3.5 Arms
Rated current	1.32 Arms
Torque constant +/- 10%	0.91 Nm/Arms
Voltage constant +/- 10%	55 Vrsm/Krpm
Phase/pase resistance +/- 10% @25°C	13.3
Phase/pase resistance +/- 10% @25°C	38.5 mH
Electrical time constant	2.9 ms
Rotor inertia	0.526 kg·cm <sup>2</sup>
Axial shaft load @ 80 rpm	240 N
Radial shaft load @80 rpm applied on rotor's centering	3800 N

## Optionen

### Feedback

- H1 Hall Sensor

### Connection

- D0 - cable output with connectors

### Mechanical Arrangement

- Fixed shaft: 01 - Male tread
- Tube type 01: Standard tube
- Indle shaft: AA - hex spring loaded
- Indle shaft: AB - female thread



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